

Claims

What is claimed is

- Sub B<sup>1</sup>
1. An apparatus for receiving video signals from a plurality of video cameras wherein the apparatus comprises:
    - a. a selector having a plurality of inputs wherein each input receives one of a plurality of video signals;
    - b. a video decoder coupled to an output of the selector wherein the video decoder receives a selected one of the plurality of video signals; and
    - c. a controller coupled to the video decoder wherein the controller conditions the video decoder according to a parameter representative of the selected one of the video signals.
  2. The apparatus according to claim 1 further comprising a memory device coupled to the controller for storing the parameter in association with an identification of a corresponding one of the video cameras.
  3. The apparatus according to claim 1 further comprising a memory device coupled to the controller for storing the parameter in a storage location which is associated with the corresponding camera.
  4. The apparatus according to claim 1 wherein the parameter is a selected one of a plurality of stored parameters, wherein each stored parameter corresponds to one of the plurality of video cameras.
  5. The apparatus according to claim 1 wherein the parameter is obtained from the

2 video decoder.

1 6. The apparatus according to claim 1 wherein the selector is a multiplexer.

1 7. The apparatus according to claim 1 wherein the parameter is a horizontal  
2 frequency of the video signal.

1 8. The apparatus according to claim 1 wherein the video decoder comprises a  
2 genlock block.

1 9. The apparatus according to claim 8 wherein the video decoder further  
2 comprises an analog-to-digital converter for converting the selected one of the video signals  
3 into a series of digital samples wherein the analog-to-digital converter performs sampling  
4 according to pulses received from the genlock block.

1 10. An apparatus for receiving video signals from a plurality of video cameras  
2 wherein the apparatus comprises:

- 3 a. a selector having a plurality of inputs wherein each input receives one  
4 of a plurality of video signals;
- 5 b. a video decoder coupled to an output of the selector wherein the video  
6 decoder receives a selected one of the plurality of video signals; and
- 7 c. a controller coupled to the video decoder wherein the controller  
8 conditions the video decoder according to a plurality of parameters  
9 representative of the selected one of the video signals.

1 11. The apparatus according to claim 10 further comprising a memory device  
2 coupled to the controller for storing the plurality of parameters in association with an

3 identification of a corresponding one of the video cameras.

1 12. The apparatus according to claim 10 further comprising a memory device  
2 coupled to the controller for storing the plurality of parameters in a storage location which is  
3 associated with the corresponding camera.

1 13. The apparatus according to claim 10 wherein the plurality of parameters are a  
2 selected set of a plurality of stored sets of parameters, wherein each stored set of parameters  
3 corresponds to one of the plurality of video cameras.

1 14. The apparatus according to claim 10 wherein the parameter is obtained from  
2 the video decoder.

1 15. The apparatus according to claim 10 wherein the selector is a multiplexer.

1 16. The apparatus according to claim 10 wherein the parameter is a horizontal  
2 frequency of the video signal.

1 17. The apparatus according to claim 16 wherein the parameter is a horizontal  
2 phase of the video signal.

1 18. The apparatus according to claim 10 wherein the parameter is a horizontal  
2 phase of the video signal.

1 19. The apparatus according to claim 10 wherein the parameter is a chrominance  
2 frequency of the video signal.

1       20.           The apparatus according to claim 19 wherein the parameter is a chrominance  
2 phase of the video signal.

1       21.           The apparatus according to claim 10 wherein the parameter is a chrominance  
2 phase of the video signal.

1       22.           The apparatus according to claim 10 wherein the parameter is a gain level for  
2 the video signal.

1       23.           The apparatus according to claim 10 wherein the parameter is a dc clamping  
2 level for the video signal.

1       24.           The apparatus according to claim 10 wherein the video decoder comprises a  
2 genlock block.

1       25.           The apparatus according to claim 24 wherein the video decoder further  
2 comprises an analog-to-digital converter for converting the selected one of the video signals  
3 into a series of digital samples wherein the analog-to-digital converter performs sampling  
4 according to pulses received from the genlock block.

1       26.           A method of receiving video signals from a plurality of video cameras wherein  
2 the method comprises steps of:

- 3           a.           selecting one of the plurality of video cameras for providing a video  
4 signal to a video decoder;  
5           b.           retrieving a parameter representative of the video signal from a memory  
6 store; and  
7           c.           conditioning the video decoder according to the parameter.

1     27.           The method according to claim 26 further comprising a step of capturing a  
2     video frame from the selected one of the plurality of video cameras.

1     28.           The method according to claim 27 further comprising a step of storing the  
2     captured video frame.

1     29.           The method according to claim 27 further comprising a step of completing a  
2     cycle wherein the step of completing the cycle comprises performing the steps of selecting,  
3     retrieving, conditioning and capturing for each camera of the plurality.

4     30.           The method according to claim 26 further comprising a step of updating the  
5     parameter according to the video signal thereby forming an updated parameter.

1     31.           The method according to claim 30 wherein the step of updating the parameter  
2     comprises a step of forming a predicted value for the parameter.

3     32.           The method according to claim 31 wherein the step of forming a predicted  
4     value for the parameter comprises steps of:

- 5           a.           calculating a difference between prior value obtained for the parameter  
6                        and a current value obtained for the parameter; and  
7           b.           combining the difference with the current value.

1     33.           The method according to claim 30 further comprising a step of storing the  
2     updated parameter in association with an identification of the selected one of the plurality of  
3     video cameras.

1     34.           The method according to claim 33 further comprising a step of selecting a next

2 one of the plurality of cameras according to a sequence.

1 35. The method according to claim 30 further comprising a step of storing the  
2 updated parameter in a storage location which is associated with the corresponding camera.

1 36. The method according to claim 35 further comprising a step of selecting a next  
2 one of the plurality of cameras according to a sequence.

1 37. The method according to claim 26 further comprising a step of initializing the  
2 apparatus upon start-up by obtaining an initial value for the parameter corresponding to each  
3 video signal during a first cycle through all of the cameras wherein a video frame is captured  
4 from each camera during the first cycle.

1 38. The method according to claim 26 further comprising a step of initializing the  
2 apparatus upon start-up by performing two or more cycles through all of the cameras and  
3 wherein a video frame is captured from each camera only upon completion of the two or  
4 more cycles.

1 39. The method according to claim 26 wherein the parameter is a horizontal  
2 frequency of the video signal.

1 40. The method according to claim 39 wherein the parameter is a horizontal phase  
2 of the video signal.

1 41. The method according to claim 40 wherein the parameter is a chrominance  
2 frequency of the video signal.

44. The method according to claim 43 wherein the parameter is a dc clamping level for the video signal.

1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500 2600 2700 2800 2900 3000 3100 3200 3300 3400 3500 3600 3700 3800 3900 4000 4100 4200 4300 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500 5600 5700 5800 5900 6000 6100 6200 6300 6400 6500 6600 6700 6800 6900 7000 7100 7200 7300 7400 7500 7600 7700 7800 7900 8000 8100 8200 8300 8400 8500 8600 8700 8800 8900 9000 9100 9200 9300 9400 9500 9600 9700 9800 9900 10000